TESTIMONY OF MICHAEL HOPMEIER
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ON THE ISSUE OF
BIOSCIENCES AND THE INTELLIGENCE COMMUNITY
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Chairman Linder, Ranking Member Langevin and committee members, I would like to thank you for this opportunity to discuss today an issue of paramount importance to our nation, the application and use of intelligence concepts and techniques to the biosciences, including medicine and biotechnology. As we have seen time and time again, and most recently in several problems that have arisen, such as the anthrax incidents, the Chiron troubles of last year, and the anticipated difficulties of the H5N1 Avian influenza pandemic now facing us, the need to anticipate events is tantamount to avoiding surprise and possibly disaster.

To put my comments in context, I would like to provide you a brief summary of my background. I am currently President of a policy and engineering consulting firm, Unconventional Concepts, Inc. For the last decade, I have been involved in a number of senior policy positions as a Special Government Employee and a consultant. These have included chairing or membership on several Defense Science Board studies. I am currently the Special Advisor to the US Surgeon General on WMD and Homeland Security, Senior Science Advisor to the Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense and an advisor or consultant to numerous other agencies and organizations. Included in my written testimony is a fuller CV for further details.

I will use the term “intelligence” in my discussions this morning, and I think it is appropriate to define it. Intelligence, in the context of my discussion, is the product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning the biosciences, and factors affecting public health and medicine.

I would like to note at this point, however, that even assuming that we were to "fix" and improve the intelligence process associated with the biosciences, we must also be able, and willing, to act on what intelligence provides us. While action based on intelligence is not the topic of today's testimony, please recognize that intelligence, in and of itself, is not a panacea; it is useless without the process, will and ability to act.

To come right to the point, there exist fundamental differences between, on the one hand, the medical and biotech communities, and the intelligence community on the other. The differences go far beyond mere changes in goals and methods, and are in fact cultural and societal. Each of the two groups have vastly different ways of looking at the world, how they collect information and make sense of it, how they protect it and share it, and how they determine what actions to take based on their analysis and understanding of the information they collect. These differences, however, are not mutually exclusive, but merely the result of different inclinations, training and time horizons.

One key aspect of these differences deals with the fact that, when we discuss "intelligence" we are discussing a prospective technique, i.e. a part of the process that leads to predicting the future based on information concerning the past and the present. This is fundamentally different from most of the medical and public health communities wherein they deal primarily with the present in a response role. In the field of biotechnology, however, intelligence is most akin to what we see in the commercial world wherein we try to predict trends for guidance in business strategy.

That being said, it is absolutely vital to the safety and welfare of our nation that, at some level, these differences be overcome. As I alluded to earlier, two recent failures we have had or face now, the Chiron debacle and the Avian Influenza panic, are in large part direct results of failures in medical and biotechnology intelligence. The anthrax incidents highlighted many deficiencies as well.

I should note that, while two of these cases, one dealing with biotechnology (Chiron) and one dealing with disease/medicine (influenza) fall in the realm of naturally occurring events, the lessons, and the failings, are equally applicable to terrorism or deliberate acts as we saw with anthrax.

I believe it is vital to recognize that there is no quick approach to improving the relationship between the intelligence and the biosciences communities. We must change the mode of thought in the biosciences from observing what ***is*** to predicting ***what may be*** and finally to ***how can we affect the future***. The first step is intelligence in its broadest form.

With this as a starting point, the question now becomes "what should we do?" I believe that it is vital to increase both the overall awareness of intelligence, and the mode of thought it offers among our medical, public health and biosciences communities. An excellent model is that presented by the Epidemiologic Intelligence Service. In the more extensive written testimony I have provided to the Committee, you will find descriptions of a number of programs and agencies that touch on this important issue, as well as an outline for a program to leverage the capabilities of the Armed Forces Medical Intelligence Center, the CDC and academia to create a cadre of trained, motivated and educated personnel who can raise awareness and knowledge throughout the bioscience community of intelligence and the role it can play. We can create trained observers with skills and capabilities that allow them to view problems, and the world around them, in a new and critical way, one which will lead to new insights, and ultimately to the ability to prevent medical disasters and surprise, not merely respond to them.

I would like to leave you with this final thought. The health and safety of our nation depends on our ability, not merely to respond to adversity, but to prepare for, and hopefully mitigate or prevent it. It has often been said with respect to disease that that which does not kill us makes us stronger; this, of course, is said by those who were made stronger, not those killed in the process. We must become stronger, but we must also minimize the number of those who will die as a result of our failure in predicting, and

effectively responding to biological attacks and disasters. The only way to achieve this is through accurate and effective prediction, and prevention, of disaster. The means to achieve this is intelligence, leading to action, and the adoption of biomedical institutions and protocols that strengthen this new paradigm.

I am happy to answer any questions you may have.